

n an early morning in late May we launched our kayaks and headed out around Trinidad Head. The ocean was glassy in the early morning hours. We expected that later in the day the winds would begin blowing from the northeast, as they often do in the afternoons over the waters off the Humboldt County coast. A raft of several hundred Common Murres (scientific name: Uria aalge) bobbed with the ocean swell in the shoal between Flat Iron Rock and Trinidad State Beach, just north of the headland. As we paddled closer, the fresh aroma of the marine air was invaded by an overpowering and unmistakable stench of guano.

The raft of murres was actively vocalizing, diving amongst the brown kelp and surfacing as long as a minute later with small silver fish firmly locked in their bills. The fish were hard to identify, but were probably some kind of smelt or juvenile rockfish. Some of the birds flapped their small and narrow wings furiously as they attempted to take flight and return to their nests on the rock in order to feed the fish to their chicks. It was not the raft of birds that smelled so pungent, but rather the white guano-stained Flat Iron Rock.

Flat Iron is one of several sea mounts along the northern California coast that serve as critical nesting habitat for a variety of sea birds like murres and cormorants, as well as being resting sites for Brown Pelicans. The distance of the rock from shore and its steep entrance into the water render it inaccessible to most land-based predators, affording protection for eggs, chicks, and adults alike. At Flat Iron Rock, the most prominent residents, by sight or smell, are the thousands of Common Murres. In fact, Flat Iron alone has more than 12,000 pairs of nesting murres. The murres are characterized by their highly contrasting brownish-black backs and heads and bright-white undersides. The murres



nest on Flat Iron from late April to early July in most years, but they start extended visits to claim their exact nesting site in February or earlier each year.

In the case of murres, the word "nest" does not describe what most people might picture in their minds as a bird nest. Each pair of murres lays a single blue-green egg among the rocks; no sticks or nesting material, just hard rock. With luck, they choose a site where their egg will not roll away, be trampled by their neighbors, or be stolen by a gull or raven for lunch.

There are relatively few large rocks, sea stacks, or sea mounts that can be used for nesting. For those that are suitable for nesting, the availability of specific sites where the terrain is flat enough to prevent eggs from rolling away, or protected from waves or ocean spray are in limited supply. This, in part, causes the murres to nest in tightly packed groups. A more important reason, however, is that there is safety in numbers that benefit both chicks and adults. The chicks and eggs on the edge of colonies suffer predation from gulls and ravens. Adults, too, can be vulnerable to eagles and falcons.

Common Murres grow to 18 inches in length, 29 inch wingspan, and weigh about 2 pounds. Male and female murres are indistinguishable. Photo courtesy of USFWS/ Humboldt State University

There is also a downside to living so close to your neighbor. When they bring a fish for their chick, they must land within the colony of birds and get the fish to the chick without the catch being stolen by another murre or resident gulls. Murres work hard for their fish, often diving to hundreds of feet below the surface. If fish are stolen or lost, it not only deprives the chick of a meal, but the parent loses a lot of time and energy that it had spent finding, catching, and air-freighting the fish back to the rock.

Murres also share the rock with larger, more aggressive cormorants. Two species of cormorants, Brandt's Cormorants and Pelagic Cormorants, nest on the rock. Unlike murres, Brandt's Cormorants build substantial nests of sticks and are very aggressive towards any intruder. Brandt's Cormorants' nests are widely spaced across the rock, and no bird will venture within a necks-reach of a cor-



Above: mixture of cormorants and murres. Notice the space around the all black cormorants.

Below: Common Murre carrying a fish.

Photos taken by a robotic camera, which is parts of the Humbolt State University research project



morant's hooked-bill, or at least not without a serious jab from the nest-holder. Murres often nest just beyond the reach of a nesting cormorant and actually benefit from the cormorant's protection of its own nest.

Relatives of murres in the auk family, such as Cassin's Auklets and Rhinoceros Auklets, also can be found on these rocks. Paddlers may see these auklets on the water; however, their nests will not be visible, even though they use some of the same rocks for nesting (for example, Castle Rock off of Crescent City). Auklets burrow into the fragile and very limited soils on the rocks. They nest well underground and come and go under the cover of darkness. Their small size makes them especially vulnerable to predatory birds.

The safety of the rocks for nesting is often key to seabird reproduction. Murres appear very numerous, both on the rocks and in the water, because the individuals are linked together by use of the same rock for nesting and that rock's proximity to the fisheries they use to feed themselves and their chicks. Thus, a disturbance of any kind during the breeding season will affect the shared occupants of the rock. Specifically, disturbance from a low flying aircraft or from watercraft that get too

close to the colony can be disastrous to the reproductive effort of the whole colony. Often the first sign of alarm from disturbance is intense and nervous "head bobbing"—their heads or whole bodies move in an up-and-down motion—sometimes involving the entire colony. Paddlers who observe head bobbing are too close to the colony and should move away immediately before the birds take flight from the rock. In the chaos of a mass exodus by distressed murres, many eggs are damaged or roll away and are lost. In the absence of the parents, both chicks and eggs are vulnerable to predation from gulls and ravens. So, the fate of one nest can become the fate of most nests in the colony. A single disturbance event during the nesting season can cause a significant proportion of the nests in the colony to fail and that colony will lose their reproductive effort for an entire year.

There are not many colonies along our coasts. For example, there are only nine significant murre colonies between Trinidad Head and the Oregon border (a distance of 75 miles of coast). So it does not take very many disturbances to impact the entire population along the coast. Paddlers can help ensure reproductive success of breeding colonies by



www.calkayakermag.com Spring 2011

Gulf of the Farallones Seabird Protection Network has a video showing kayakers spooking sea birds off of rocks and a separate video showing what happens when sea birds are spooked (by an unknown source): www.youtube.com/user/SeabirdProtection. More information on the Gulf of the Farallones Seabird Protection Network can be found at farallones.noaa.gov/eco/seabird/welcome.html.

During the breeding season from April through August, the Castle Rock (Trinidad) breeding colony of murres can also be observed by web cam at users.humboldt.edu/rgolightly/research/castle\_rock.html.

Last year, six special closure areas went into effect off of Marin and San Mateo counties as the result of the enactment of rules under the Marine Life Protection Act. These closures are between Chimney Rock and the Point Reves Lighthouse; Point Resistance and Stormy Stack on Drake's Bay; Egg Rock off of Devil's Slide: and two areas at the Farallone Islands. These closures were all put in place to protect breeding colonies for sea birds. See the News section of the Spring 2010 issue of California Kayaker Magazine or the MLPA page at www.dfg.ca.gov/mlpa/ newsroommain.asp for details.

giving them a berth of at least 300 yards during the breeding season.

Murres, cormorants, pelicans and many other species are all a part of the wonderful experiences in nature that are accessible by kayak along the California coast. In suitable ocean conditions, experienced paddlers can readily and responsibly view these birds in the water as well as the murre colonies at various locations from south of Big Sur to past the Oregon border. As paddlers,

we should be mindful that when we are on the water, we are visiting the place where these birds feed, reproduce, and complete all the necessities of life. It is their home. As mindful guests in their domain, we can look forward to lasting adventures and memories that follow us when we return to our own terra firma.

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